

over the grass, as a function of the height and density of the lawn. As a result, even when mowing at a height above the diameter of balls, the latter are damaged.

Therefore, there exists a definite need to develop a cutting attachment for lawn mowers for mowing golf courses in the presence of golf balls. It is particularly desirable to provide such an attachment for automatic or robotic mowing of practice courses so that it may even be possible to allow players to continue their practice while mowing.

To this end, this invention proposes an improvement to a robotic lawn mower, e.g. the one described in patent application no. PCT/BE98/00038, consisting of a cutting attachment which allows mowing in the presence of hard, small-sized objects, particularly golf balls, without damaging them.

According to the invention, the freely rotating disk or plate proposed in the above application is provided with extensions, or "prongs", which extend radially from its periphery so that balls or other equivalent objects may be maintained out of the reach of the retractable blades, while allowing the latter to reach and cut the grass. The system for suspending the cutting attachments allows the latter to be lifted. When the robotic lawn mower passes, the balls beneath the freely rotating disk are not touched by the blades. Friction is also reduced as compared to the fixed disk application, since the forward movement of the machine is coupled to the rotation of the disk in contact with the ball.

Page 3, beginning at line 12, amend to read as follows:

To this end, it is noted that the addition of peripheral prongs to a non-freely rotating disk results in a specific undesirable obstruction caused by the collection of grass blades of variable length by the prongs as the machine advances. This problem is avoided by making the disk carrying the peripheral prongs freely rotating. According to one of the variants of the invention, the forwardly directed prongs are directed backwards after a half-turn, and the friction with the lawn grass causes said grass to be released and the pronged disk to be cleaned.

This change to the disk as compared to prior art also increases cutting system safety. When in contact with a living being or an object to be protected, the modified disk will prevent or strongly reduce any direct contact with the blades. Therefore, the

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device according to the invention may also be advantageously used in non robotic cutting devices (bush-cutters, mowers).

Page 5, beginning at line 12, amend to read as follows:

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In Fig. 1 the bottom circular plate, which is freely rotatable about the cutting axis 6, is shown. The cutter disk 2 is situated above the plate 3, and is driven by the motor, parallel to the plate. The cutter disk has three blades 1 at its periphery, which extend radially and can pivot freely about an axis of rotation 4 and retract thereafter beneath the cutter disk under the effect of excessive resistance. The bottom plate 3 (freely rotating protective disk) is provided with regular, coplanar extensions 33 at its periphery. These extensions are in the form of rounded prongs extending beyond the zone which the blades 1 can reach by centrifugal force when the cutter disk is rotated. The distance between two radial ends of the extensions is smaller than the size of objects which might be encountered when mowing, in this case, golf balls. Balls are kept out of the reach of the free blades 1 between two adjacent extensions. When the grass is cut, balls are not touched by the blades.

IN THE CLAIMS

Cancel claims 18, 19 and 21 without prejudice.

Please enter the following amended claims:

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12. (Amended) A lawn mower having a chassis and a cutting attachment linked to said chassis, said cutting attachment comprising a motor with a driving shaft linked to a cutter disk perpendicular to said shaft and provided at its periphery with at least one blade, and a bottom plate substantially parallel to, and located beneath the cutter disk, wherein the periphery of the bottom plate has substantially coplanar extensions, extending radially beyond a zone reachable by the blades and wherein said bottom plate is circular and has a size, excluding the extensions, which is substantially equal to or smaller than the size of the cutter disk excluding the blades, said extensions functioning to maintain objects which are in the lawn being mowed outside the reach of said blades, while allowing the blades to mow.

13. (Amended) A lawn mower as claimed in claim 12 wherein the bottom plate is mounted freely on a pin of the cutter disk via a roller bearing.

14. (Amended) A lawn mower as claimed in claim 12 wherein the extensions are provided in the form of prongs having a rounded profile made of hollows and tips.

B3 15. (Amended) A lawn mower as claimed in claim 14, wherein the distance between two tips or ends of adjacent extensions ranges from 2 cm to 5 cm.

16. (Amended) A lawn mower as claimed in claim 12, wherein the number of extensions ranges from 10 to 60.

17. (Amended) A lawn mower as claimed in claim 12 linked to the chassis via a suspension system.

B6 20. (Amended) A mower as claimed in claim 12 characterized in that it is a robotic lawnmower.

Add the following claims:

B7 22. (New) In a method for mowing grass with a robotic lawn mower, the improvement wherein the robotic lawn mower is one according to claim 12 whereby damage to objects in the grass being mowed is avoided.

23. (New) The method of claim 22 wherein the grass being mowed is a golf course and the objects are golf balls.